DuPont™ Suva®

REFRIGERANTS

Technical Information
T-236fa—SI

Thermodynamic Properties of DuPont™ Suva® 236fa

(1,1,1,3,3,3-hexafluoropropane)

DuPont Product Names:

FE-36™ Fire Extinguishant
DuPont™ Suva® 236fa Refrigerant
DuPont™ Dymel® 236fa Pharmaceutical Propellant

The miracles of science™

Thermodynamic Properties of DuPont™ Suva® 236fa Refrigerant

(1,1,1,3,3,3-hexafluoropropane)

SI Units

Tables of the thermodynamic properties of Suva® 236fa and its pressure-enthalpy diagram have been developed and are presented here. This information is based on values calculated using the NIST REFPROP Database [McLinden, M.O., Klein, S.A., Lemmon, E.W., and Peskin, A.P., NIST Standard Reference Database 23, NIST thermodynamic and transport properties of refrigerants and refrigerant mixtures - REFPROP, version 6.01, Standard Reference Data Program, National Institute of Standards and Technology, 1998].

Units

P = Pressure in lbs. per square inch absolute

t = Temperature in degrees Celcius

V_f = fluid (liquid) volume, cubic meters per kilogram

Vg = gas volume, cubic meters per kilogram

h = enthalpy (kJ/kg)

s = Entropy (kJ/kg·K)

Physical Properties

Chemical Formula	$CF_3CH_2CF_3$
Molecular Weight	152.04
Boiling Point at One Atmosphere	–1.44 °C
Critical Temperature	124.92 °C
Critical Pressure	3200 kPa
Critical Density	551.3 kg/m^3
Critical Volume	0.0018 m^3/kg

Table 1

FIX DUPont and heads below DuPont™ Suva® 236fa Saturation Properties—Temperature Table

TEMP. °C	PRESSURE (kPa)	DENSITY (kg/m³)		VOLUME (m³/kg)		ENTHALPY (kJ/kg)		ENTROPY (kJ/K-kg)		
		LIQUID	VAPOR	LIQUID	VAPOR	LIQUID	LATENT	VAPOR	LIQUID	VAPOR
–50	7.6	1590.0	0.629	0.0006	1.589	142.0	183.0	325.0	0.7662	1.5860
–49	8.2	1587.0	0.670	0.0006	1.492	143.1	182.6	325.7	0.7712	1.5850
–48	8.7	1584.0	0.714	0.0006	1.402	144.3	182.0	326.3	0.7761	1.5850
–47	9.3	1581.0	0.759	0.0006	1.318	145.4	181.6	327.0	0.7811	1.5840
–46	9.9	1578.0	0.807	0.0006	1.239	146.5	181.2	327.7	0.7860	1.5840
–45	10.6	1575.0	0.857	0.0006	1.167	147.6	180.8	328.4	0.7910	1.5830
–44	11.3	1572.0	0.910	0.0006	1.099	148.7	180.4	329.1	0.7959	1.5830
–43	12.0	1569.0	0.966	0.0006	1.036	149.9	179.8	329.7	0.8008	1.5820
–42	12.8	1566.0	1.024	0.0006	0.977	151.0	179.4	330.4	0.8056	1.5820
–41	13.6	1563.0	1.085	0.0006	0.922	152.1	179.0	331.1	0.8105	1.5820
–40	14.5	1560.0	1.149	0.0006	0.871	153.3	178.5	331.8	0.8154	1.5810
–39	15.4	1557.0	1.216	0.0006	0.823	154.4	178.1	332.5	0.8202	1.5810
–38	16.3	1554.0	1.286	0.0006	0.778	155.5	177.7	333.2	0.8250	1.5810
–37	17.3	1551.0	1.359	0.0006	0.736	156.7	177.2	333.9	0.8298	1.5800
–36	18.4	1549.0	1.436	0.0007	0.696	157.8	176.8	334.6	0.8346	1.5800
–35	19.5	1546.0	1.517	0.0007	0.659	158.9	176.3	335.2	0.8394	1.5800
–34	20.6	1543.0	1.600	0.0007	0.625	160.1	175.8	335.9	0.8442	1.5800
–33	21.8	1540.0	1.688	0.0007	0.592	161.2	175.4	336.6	0.8490	1.5790
–32	23.1	1537.0	1.779	0.0007	0.562	162.4	174.9	337.3	0.8537	1.5790
–31	24.4	1534.0	1.875	0.0007	0.533	163.5	174.5	338.0	0.8585	1.5790
–30	25.8	1531.0	1.974	0.0007	0.507	164.7	174.0	338.7	0.8632	1.5790
–29	27.2	1528.0	2.078	0.0007	0.481	165.8	173.6	339.4	0.8679	1.5790
–28	28.8	1525.0	2.186	0.0007	0.458	167.0	173.1	340.1	0.8726	1.5790
–27	30.3	1522.0	2.298	0.0007	0.435	168.1	172.7	340.8	0.8773	1.5790
–26	32.0	1519.0	2.415	0.0007	0.414	169.3	172.2	341.5	0.8820	1.5790
–25	33.7	1516.0	2.537	0.0007	0.394	170.4	171.8	342.2	0.8867	1.5790
–24	35.5	1513.0	2.664	0.0007	0.375	171.6	171.3	342.9	0.8913	1.5790
–23	37.4	1510.0	2.795	0.0007	0.358	172.7	170.9	343.6	0.8960	1.5790
–22	39.3	1507.0	2.932	0.0007	0.341	173.9	170.4	344.3	0.9006	1.5790
–21	41.4	1504.0	3.074	0.0007	0.325	175.1	169.8	344.9	0.9052	1.5790
–20	43.5	1501.0	3.222	0.0007	0.310	176.2	169.4	345.6	0.9098	1.5790
–19	45.7	1498.0	3.375	0.0007	0.296	177.4	168.9	346.3	0.9144	1.5790
–18	48.0	1495.0	3.533	0.0007	0.283	178.6	168.4	347.0	0.9190	1.5790
–17	50.4	1492.0	3.698	0.0007	0.270	179.7	168.0	347.7	0.9236	1.5790
–16	52.8	1489.0	3.869	0.0007	0.259	180.9	167.5	348.4	0.9282	1.5800
–15	55.4	1486.0	4.046	0.0007	0.247	182.1	167.0	349.1	0.9327	1.5800
–14	58.1	1483.0	4.229	0.0007	0.237	183.3	166.5	349.8	0.9373	1.5800
–13	60.9	1480.0	4.419	0.0007	0.226	184.5	166.0	350.5	0.9418	1.5800
–12	63.8	1477.0	4.616	0.0007	0.217	185.6	165.6	351.2	0.9464	1.5800
–11	66.7	1474.0	4.819	0.0007	0.208	186.8	165.1	351.9	0.9509	1.5810
–10	69.8	1471.0	5.029	0.0007	0.199	188.0	164.6	352.6	0.9554	1.5810
–9	73.1	1468.0	5.247	0.0007	0.191	189.2	164.1	353.3	0.9599	1.5810
–8	76.4	1465.0	5.472	0.0007	0.183	190.4	163.6	354.0	0.9644	1.5810
–7	79.8	1462.0	5.705	0.0007	0.175	191.6	163.1	354.7	0.9689	1.5820
–6	83.4	1459.0	5.945	0.0007	0.168	192.8	162.6	355.4	0.9734	1.5820
–5	87.1	1456.0	6.193	0.0007	0.162	194.0	162.1	356.1	0.9778	1.5820
–4	90.9	1453.0	6.450	0.0007	0.155	195.2	161.6	356.8	0.9823	1.5830
–3	94.9	1450.0	6.714	0.0007	0.149	196.4	161.1	357.5	0.9867	1.5830
–2	99.0	1446.0	6.987	0.0007	0.143	197.6	160.6	358.2	0.9912	1.5830
–1	103.2	1443.0	7.269	0.0007	0.138	198.8	160.1	358.9	0.9956	1.5840

Table 1 (continued)
DuPont™ Suva® 236fa Saturation Properties—Temperature Table

TEMP. °C	PRESSURE (kPa)	DENSITY (kg/m^3)		VOLUME (m^3/kg)		ENTHALPY (kJ/kg)		ENTROPY (kJ/K-kg)		
		LIQUID	VAPOR	LIQUID	VAPOR	LIQUID	LATENT	VAPOR	LIQUID	VAPOR
0	107.6	1440.0	7.560	0.0007	0.132	200.0	159.6	359.6	1.0000	1.5840
1	112.1	1437.0	7.860	0.0007	0.127	201.2	159.1	360.3	1.0040	1.5850
2	116.7	1434.0	8.169	0.0007	0.122	202.4	158.6	361.0	1.0090	1.5850
3	121.6	1431.0	8.488	0.0007	0.118	203.6	158.1	361.7	1.0130	1.5850
4	126.5	1428.0	8.816	0.0007	0.113	204.9	157.5	362.4	1.0180	1.5860
5	131.6	1425.0	9.155	0.0007	0.109	206.1	157.0	363.1	1.0220	1.5860
6	136.9	1421.0	9.503	0.0007	0.105	207.3	156.5	363.8	1.0260	1.5870
7	142.4	1418.0	9.862	0.0007	0.101	208.5	155.9	364.4	1.0310	1.5870
8	148.0	1415.0	10.230	0.0007	0.098	209.7	155.4	365.1	1.0350	1.5880
9	153.8	1412.0	10.610	0.0007	0.094	211.0	154.8	365.8	1.0390	1.5880
10	159.7	1409.0	11.000	0.0007	0.091	212.2	154.3	366.5	1.0440	1.5890
11	165.9	1406.0	11.410	0.0007	0.088	213.4	153.8	367.2	1.0480	1.5890
12	172.2	1402.0	11.820	0.0007	0.085	214.7	153.2	367.9	1.0520	1.5900
13	178.7	1399.0	12.250	0.0007	0.082	215.9	152.7	368.6	1.0570	1.5900
14	185.4	1396.0	12.690	0.0007	0.079	217.1	152.2	369.3	1.0610	1.5910
15	192.2	1393.0	13.140	0.0007	0.076	218.4	151.6	370.0	1.0650	1.5910
16	199.3	1390.0	13.600	0.0007	0.074	219.6	151.1	370.7	1.0700	1.5920
17	206.6	1386.0	14.080	0.0007	0.071	220.9	150.5	371.4	1.0740	1.5930
18	214.1	1383.0	14.570	0.0007	0.069	222.1	150.0	372.1	1.0780	1.5930
19	221.7	1380.0	15.070	0.0007	0.066	223.4	149.3	372.7	1.0820	1.5940
20	229.6	1376.0	15.580	0.0007	0.064	224.6	148.8	373.4	1.0870	1.5940
21	237.8	1373.0	16.110	0.0007	0.062	225.9	148.2	374.1	1.0910	1.5950
22	246.1	1370.0	16.660	0.0007	0.060	227.1	147.7	374.8	1.0950	1.5950
23	254.6	1366.0	17.220	0.0007	0.058	228.4	147.1	375.5	1.0990	1.5960
24	263.4	1363.0	17.790	0.0007	0.056	229.7	146.5	376.2	1.1040	1.5970
25	272.4	1360.0	18.380	0.0007	0.054	230.9	145.9	376.8	1.1080	1.5970
26	281.6	1356.0	18.990	0.0007	0.053	232.2	145.3	377.5	1.1120	1.5980
27	291.1	1353.0	19.610	0.0007	0.051	233.5	144.7	378.2	1.1160	1.5990
28	300.8	1350.0	20.250	0.0007	0.049	234.7	144.2	378.9	1.1210	1.5990
29	310.8	1346.0	20.900	0.0007	0.048	236.0	143.6	379.6	1.1250	1.6000
30	321.0	1343.0	21.570	0.0007	0.046	237.3	142.9	380.2	1.1290	1.6000
31	331.5	1339.0	22.260	0.0008	0.045	238.6	142.3	380.9	1.1330	1.6010
32	342.2	1336.0	22.970	0.0008	0.044	239.8	141.8	381.6	1.1370	1.6020
33	353.2	1332.0	23.690	0.0008	0.042	241.1	141.1	382.2	1.1410	1.6020
34	364.4	1329.0	24.430	0.0008	0.041	242.4	140.5	382.9	1.1460	1.6030
35	376.0	1325.0	25.190	0.0008	0.040	243.7	139.9	383.6	1.1500	1.6040
36	387.8	1322.0	25.980	0.0008	0.039	245.0	139.3	384.3	1.1540	1.6040
37	399.8	1318.0	26.780	0.0008	0.037	246.3	138.6	384.9	1.1580	1.6050
38	412.2	1315.0	27.600	0.0008	0.036	247.6	138.0	385.6	1.1620	1.6060
39	424.8	1311.0	28.440	0.0008	0.035	248.9	137.3	386.2	1.1660	1.6060
40	437.8	1308.0	29.300	0.0008	0.034	250.2	136.7	386.9	1.1710	1.6070
41	451.0	1304.0	30.190	0.0008	0.033	251.5	136.1	387.6	1.1750	1.6080
42	464.5	1300.0	31.090	0.0008	0.032	252.8	135.4	388.2	1.1790	1.6080
43	478.4	1297.0	32.020	0.0008	0.031	254.1	134.8	388.9	1.1830	1.6090
44	492.5	1293.0	32.970	0.0008	0.030	255.5	134.0	389.5	1.1870	1.6100
45	507.0	1289.0	33.950	0.0008	0.029	256.8	133.4	390.2	1.1910	1.6100
46	521.8	1285.0	34.950	0.0008	0.029	258.1	132.7	390.8	1.1950	1.6110
47	536.9	1282.0	35.980	0.0008	0.028	259.4	132.1	391.5	1.1990	1.6120
48	552.3	1278.0	37.030	0.0008	0.027	260.8	131.3	392.1	1.2040	1.6130
49	568.1	1274.0	38.100	0.0008	0.026	262.1	130.6	392.7	1.2080	1.6130

Table 1 (continued)
DuPont™ Suva® 236fa Saturation Properties—Temperature Table

TEMP. °C	PRESSURE (kPa)	DENSITY (kg/m³)		VOLUME (m³/kg)		ENTHALPY (kJ/kg)		ENTROPY (kJ/K-kg)		
		LIQUID	VAPOR	LIQUID	VAPOR	LIQUID	LATENT	VAPOR	LIQUID	VAPOR
50	584.2	1270.0	39.210	0.0008	0.026	263.4	130.0	393.4	1.2120	1.6140
51	600.6	1266.0	40.340	0.0008	0.025	264.8	129.2	394.0	1.2160	1.6150
52	617.4	1263.0	41.500	0.0008	0.024	266.1	128.5	394.6	1.2200	1.6150
53	634.5	1259.0	42.680	0.0008	0.023	267.5	127.8	395.3	1.2240	1.6160
54	652.0	1255.0	43.900	0.0008	0.023	268.8	127.1	395.9	1.2280	1.6170
55	669.9	1251.0	45.150	0.0008	0.022	270.2	126.3	396.5	1.2320	1.6170
56	688.1	1247.0	46.430	0.0008	0.022	271.5	125.6	397.1	1.2360	1.6180
57	706.7	1243.0	47.740	0.0008	0.021	272.9	124.9	397.8	1.2400	1.6190
58	725.7	1238.0	49.080	0.0008	0.020	274.2	124.2	398.4	1.2440	1.6190
59	745.0	1234.0	50.460	0.0008	0.020	275.6	123.4	399.0	1.2490	1.6200
60	764.7	1230.0	51.870	0.0008	0.019	277.0	122.6	399.6	1.2530	1.6210
61	784.9	1226.0	53.320	0.0008	0.019	278.4	121.8	400.2	1.2570	1.6210
62	805.4	1222.0	54.810	0.0008	0.018	279.7	121.1	400.8	1.2610	1.6220
63	826.3	1218.0	56.330	0.0008	0.018	281.1	120.3	401.4	1.2650	1.6230
64	847.7	1213.0	57.890	0.0008	0.017	282.5	119.5	402.0	1.2690	1.6230
65	869.4	1209.0	59.490	0.0008	0.017	283.9	118.7	402.6	1.2730	1.6240
66	891.6	1205.0	61.140	0.0008	0.016	285.3	117.8	403.1	1.2770	1.6250
67	914.2	1200.0	62.820	0.0008	0.016	286.7	117.0	403.7	1.2810	1.6250
68	937.2	1196.0	64.550	0.0008	0.015	288.1	116.2	404.3	1.2850	1.6260
69	960.6	1191.0	66.330	0.0008	0.015	289.5	115.3	404.8	1.2890	1.6260
70	984.5	1187.0	68.150	0.0008	0.015	290.9	114.5	405.4	1.2930	1.6270
71	1009.0	1182.0	70.020	0.0009	0.014	292.4	113.6	406.0	1.2970	1.6280
72	1034.0	1177.0	71.940	0.0009	0.014	293.8	112.7	406.5	1.3010	1.6280
73	1059.0	1172.0	73.910	0.0009	0.014	295.2	111.9	407.1	1.3060	1.6290
74	1085.0	1168.0	75.940	0.0009	0.013	296.6	111.0	407.6	1.3100	1.6290
75	1111.0	1163.0	78.020	0.0009	0.013	298.1	110.0	408.1	1.3140	1.6300
76	1138.0	1158.0	80.160	0.0009	0.012	299.5	109.1	408.6	1.3180	1.6300
77	1165.0	1153.0	82.360	0.0009	0.012	301.0	108.2	409.2	1.3220	1.6310
78	1192.0	1148.0	84.620	0.0009	0.012	302.4	107.3	409.7	1.3260	1.6310
79	1220.0	1143.0	86.940	0.0009	0.012	303.9	106.3	410.2	1.3300	1.6320
80	1249.0	1138.0	89.330	0.0009	0.011	305.4	105.3	410.7	1.3340	1.6320
81	1278.0	1132.0	91.790	0.0009	0.011	306.9	104.3	411.2	1.3380	1.6330
82	1308.0	1127.0	94.330	0.0009	0.011	308.3	103.3	411.6	1.3420	1.6330
83	1338.0	1122.0	96.940	0.0009	0.010	309.8	102.3	412.1	1.3470	1.6340
84	1369.0	1116.0	99.620	0.0009	0.010	311.3	101.3	412.6	1.3510	1.6340
85	1400.0	1111.0	102.400	0.0009	0.010	312.8	100.2	413.0	1.3550	1.6340
86	1432.0	1105.0	105.200	0.0009	0.010	314.4	99.1	413.5	1.3590	1.6350
87	1464.0	1099.0	108.200	0.0009	0.009	315.9	98.0	413.9	1.3630	1.6350
88	1497.0	1093.0	111.200	0.0009	0.009	317.4	96.9	414.3	1.3670	1.6360
89	1531.0	1087.0	114.400	0.0009	0.009	318.9	95.8	414.7	1.3710	1.6360
90	1565.0	1081.0	117.600	0.0009	0.009	320.5	94.6	415.1	1.3760	1.6360
91	1600.0	1075.0	121.000	0.0009	0.008	322.0	93.5	415.5	1.3800	1.6360
92	1635.0	1069.0	124.400	0.0009	0.008	323.6	92.2	415.8	1.3840	1.6370
93	1671.0	1063.0	128.000	0.0009	0.008	325.2	91.0	416.2	1.3880	1.6370
94	1707.0	1056.0	131.700	0.0010	0.008	326.8	89.7	416.5	1.3920	1.6370
95	1744.0	1049.0	135.600	0.0010	0.007	328.4	88.5	416.9	1.3970	1.6370
96	1782.0	1042.0	139.600	0.0010	0.007	330.0	87.2	417.2	1.4010	1.6370
97	1820.0	1035.0	143.700	0.0010	0.007	331.6	85.8	417.4	1.4050	1.6370
98	1860.0	1028.0	148.000	0.0010	0.007	333.2	84.5	417.7	1.4090	1.6370
99	1899.0	1021.0	152.500	0.0010	0.007	334.8	83.2	418.0	1.4140	1.6370

Table 1 (continued)
DuPont™ Suva® 236fa Saturation Properties—Temperature Table

TEMP. °C	PRESSURE (kPa)	DENSITY (kg/m³)		VOLUME (m³/kg)		ENTHALPY (kJ/kg)		ENTROPY (kJ/K-kg)		
		LIQUID	VAPOR	LIQUID	VAPOR	LIQUID	LATENT	VAPOR	LIQUID	VAPOR
100	1940.0	1013.0	157.100	0.0010	0.006	336.5	81.7	418.2	1.4180	1.6370
101	1981.0	1006.0	162.000	0.0010	0.006	338.2	80.2	418.4	1.4220	1.6370
102	2022.0	997.8	167.100	0.0010	0.006	339.8	78.8	418.6	1.4270	1.6370
103	2065.0	989.7	172.300	0.0010	0.006	341.5	77.2	418.7	1.4310	1.6360
104	2108.0	981.3	177.900	0.0010	0.006	343.3	75.5	418.8	1.4360	1.6360
105	2152.0	972.6	183.700	0.0010	0.005	345.0	73.9	418.9	1.4400	1.6360
106	2197.0	963.7	189.800	0.0010	0.005	346.8	72.2	419.0	1.4450	1.6350
107	2242.0	954.5	196.100	0.0011	0.005	348.5	70.5	419.0	1.4490	1.6350
108	2288.0	944.9	202.900	0.0011	0.005	350.3	68.7	419.0	1.4540	1.6340
109	2335.0	935.0	210.000	0.0011	0.005	352.1	66.9	419.0	1.4580	1.6330
110	2383.0	924.6	217.500	0.0011	0.005	354.0	64.9	418.9	1.4630	1.6320
111	2431.0	913.9	225.500	0.0011	0.004	355.9	62.8	418.7	1.4680	1.6310
112	2481.0	902.6	233.900	0.0011	0.004	357.8	60.7	418.5	1.4730	1.6300
113	2531.0	890.7	243.000	0.0011	0.004	359.7	58.5	418.2	1.4780	1.6290
114	2582.0	878.3	252.700	0.0011	0.004	361.7	56.2	417.9	1.4830	1.6280
115	2634.0	865.1	263.200	0.0012	0.004	363.7	53.8	417.5	1.4880	1.6260
116	2687.0	851.1	274.500	0.0012	0.004	365.8	51.2	417.0	1.4930	1.6240
117	2740.0	836.0	286.900	0.0012	0.003	368.0	48.4	416.4	1.4980	1.6220
118	2795.0	819.8	300.500	0.0012	0.003	370.2	45.5	415.7	1.5040	1.6200
119	2851.0	802.1	315.600	0.0013	0.003	372.6	42.2	414.8	1.5100	1.6170
120	2907.0	782.4	332.700	0.0013	0.003	375.0	38.7	413.7	1.5160	1.6140

Table 2
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	10 (–45.9°C)			20 (–34.5°C)			30 (–27.2°C)			40 (–21.7°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
–45	1.2370	328.4	1.586	–	–	–	–	–	–	–	–	–
–40	1.2650	332.0	1.602	–	–	–	–	–	–	–	–	–
–35	1.2930	335.6	1.617	–	–	–	–	–	–	–	–	–
–30	1.3210	339.3	1.633	0.6560	338.9	1.594	–	–	–	–	–	–
–25	1.3490	343.0	1.648	0.6702	342.6	1.609	0.4440	342.3	1.586	–	–	–
–20	1.3770	346.7	1.663	0.6844	346.4	1.624	0.4536	346.1	1.601	0.3381	345.8	1.584
–15	1.4040	350.5	1.677	0.6985	350.2	1.639	0.4631	349.9	1.616	0.3454	349.6	1.599
–10	1.4320	354.3	1.692	0.7125	354.0	1.653	0.4727	353.7	1.630	0.3527	353.5	1.614
–5	1.4600	358.1	1.706	0.7266	357.9	1.668	0.4821	357.6	1.645	0.3599	357.4	1.628
0	1.4870	362.0	1.721	0.7406	361.8	1.682	0.4916	361.5	1.659	0.3671	361.3	1.643
5	1.5150	365.9	1.735	0.7546	365.7	1.697	0.5010	365.5	1.674	0.3742	365.3	1.657
10	1.5430	369.9	1.749	0.7685	369.7	1.711	0.5104	369.5	1.688	0.3814	369.3	1.672
15	1.5700	373.9	1.763	0.7825	373.7	1.725	0.5198	373.5	1.702	0.3885	373.3	1.686
20	1.5980	378.0	1.777	0.7964	377.8	1.739	0.5292	377.6	1.716	0.3955	377.4	1.700
25	1.6260	382.1	1.791	0.8103	381.9	1.753	0.5385	381.7	1.730	0.4026	381.5	1.714
30	1.6530	386.2	1.805	0.8241	386.0	1.766	0.5478	385.8	1.744	0.4097	385.7	1.728
35	1.6810	390.3	1.818	0.8380	390.2	1.780	0.5571	390.0	1.757	0.4167	389.9	1.741
40	1.7080	394.6	1.832	0.8519	394.4	1.794	0.5664	394.2	1.771	0.4237	394.1	1.755
45	1.7360	398.8	1.845	0.8657	398.7	1.807	0.5757	398.5	1.785	0.4307	398.4	1.768
50	1.7630	403.1	1.859	0.8795	403.0	1.820	0.5850	402.8	1.798	0.4377	402.7	1.782
55	1.7910	407.4	1.872	0.8934	407.3	1.834	0.5943	407.2	1.811	0.4447	407.0	1.795
60	1.8180	411.8	1.885	0.9072	411.7	1.847	0.6035	411.5	1.825	0.4517	411.4	1.809
65	1.8460	416.2	1.898	0.9210	416.1	1.860	0.6128	416.0	1.838	0.4587	415.8	1.822
70	1.8730	420.7	1.911	0.9348	420.5	1.873	0.6220	420.4	1.851	0.4656	420.3	1.835
75	1.9010	425.2	1.924	0.9486	425.0	1.886	0.6313	424.9	1.864	0.4726	424.8	1.848
80	1.9280	429.7	1.937	0.9624	429.6	1.899	0.6405	429.5	1.877	0.4795	429.4	1.861
85	1.9550	434.3	1.950	0.9761	434.2	1.912	0.6497	434.1	1.890	0.4865	433.9	1.874
90	1.9830	438.9	1.963	0.9899	438.8	1.925	0.6589	438.7	1.903	0.4934	438.6	1.887
95	2.0100	443.5	1.976	1.0040	443.4	1.938	0.6681	443.3	1.915	0.5004	443.2	1.899
100	2.0380	448.2	1.988	1.0170	448.1	1.950	0.6773	448.0	1.928	0.5073	448.0	1.912
105	2.0650	453.0	2.001	1.0310	452.9	1.963	0.6866	452.8	1.941	0.5142	452.7	1.925

	Absolute Pressure (kPa)											
	50 (–17.2°C)			60 (–13.3°C)			70 (—10.0°C)			80 (–7.0°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
–15	0.2748	349.3	1.586	–	–	–	–	–	–	–	–	–
–10	0.2807	353.2	1.601	0.2327	352.9	1.590	–	–	–	–	–	–
–5	0.2865	357.1	1.616	0.2376	356.8	1.605	0.2027	356.6	1.596	0.1764	356.3	1.588
0	0.2924	361.1	1.630	0.2425	360.8	1.619	0.2069	360.6	1.610	0.1802	360.3	1.602
5	0.2982	365.0	1.645	0.2474	364.8	1.634	0.2112	364.6	1.625	0.1840	364.3	1.617
10	0.3039	369.1	1.659	0.2523	368.8	1.648	0.2154	368.6	1.639	0.1877	368.4	1.631
15	0.3097	373.1	1.673	0.2571	372.9	1.663	0.2196	372.7	1.654	0.1914	372.5	1.646
20	0.3154	377.2	1.687	0.2619	377.0	1.677	0.2237	376.8	1.668	0.1951	376.6	1.660
25	0.3211	381.3	1.701	0.2667	381.1	1.691	0.2279	381.0	1.682	0.1987	380.8	1.674
30	0.3268	385.5	1.715	0.2715	385.3	1.705	0.2320	385.1	1.696	0.2024	385.0	1.688
35	0.3324	389.7	1.729	0.2762	389.5	1.718	0.2361	389.4	1.710	0.2060	389.2	1.702
40	0.3381	393.9	1.742	0.2810	393.8	1.732	0.2402	393.6	1.723	0.2096	393.5	1.716
45	0.3437	398.2	1.756	0.2857	398.1	1.746	0.2443	397.9	1.737	0.2132	397.8	1.729
50	0.3494	402.5	1.769	0.2904	402.4	1.759	0.2484	402.2	1.750	0.2168	402.1	1.743
55	0.3550	406.9	1.783	0.2952	406.7	1.773	0.2524	406.6	1.764	0.2204	406.5	1.756
60	0.3606	411.3	1.796	0.2999	411.1	1.786	0.2565	411.0	1.777	0.2239	410.9	1.770
65	0.3662	415.7	1.809	0.3046	415.6	1.799	0.2605	415.5	1.790	0.2275	415.3	1.783
70	0.3718	420.2	1.822	0.3092	420.1	1.812	0.2646	419.9	1.803	0.2310	419.8	1.796
75	0.3774	424.7	1.835	0.3139	424.6	1.825	0.2686	424.5	1.817	0.2346	424.3	1.809
80	0.3830	429.2	1.848	0.3186	429.1	1.838	0.2726	429.0	1.830	0.2381	428.9	1.822
85	0.3886	433.8	1.861	0.3233	433.7	1.851	0.2766	433.6	1.843	0.2416	433.5	1.835
90	0.3941	438.5	1.874	0.3279	438.4	1.864	0.2806	438.3	1.855	0.2452	438.2	1.848
95	0.3997	443.1	1.887	0.3326	443.0	1.877	0.2846	442.9	1.868	0.2487	442.8	1.861
100	0.4053	447.9	1.900	0.3372	447.8	1.890	0.2886	447.7	1.881	0.2522	447.6	1.873
105	0.4108	452.6	1.912	0.3419	452.5	1.902	0.2926	452.4	1.894	0.2557	452.3	1.886
110	0.4164	457.4	1.925	0.3465	457.3	1.915	0.2966	457.2	1.906	0.2592	457.1	1.899
115	0.4219	462.2	1.937	0.3512	462.2	1.927	0.3006	462.1	1.919	0.2627	462.0	1.911
120	0.4275	467.1	1.950	0.3558	467.0	1.940	0.3046	466.9	1.931	0.2662	466.9	1.924
125	0.4330	472.0	1.962	0.3604	472.0	1.952	0.3086	471.9	1.944	0.2697	471.8	1.936
130	0.4386	477.0	1.975	0.3651	476.9	1.965	0.3126	476.8	1.956	0.2732	476.7	1.949
135	0.4441	482.0	1.987	0.3697	481.9	1.977	0.3166	481.8	1.968	0.2767	481.8	1.961

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	90 (–4.2°C)			100 (–1.8°C)			101.325 (–1.4°C)			110 (0.5°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
0	0.1594	360.0	1.595	0.1428	359.8	1.589	0.1409	359.7	1.588	–	–	–
5	0.1628	364.1	1.610	0.1459	363.8	1.604	0.1439	363.8	1.603	0.1320	363.6	1.598
10	0.1662	368.2	1.624	0.1489	367.9	1.618	0.1469	367.9	1.617	0.1348	367.7	1.612
15	0.1695	372.3	1.639	0.1520	372.1	1.633	0.1499	372.0	1.632	0.1376	371.8	1.627
20	0.1728	376.4	1.653	0.1550	376.2	1.647	0.1529	376.2	1.646	0.1404	376.0	1.641
25	0.1761	380.6	1.667	0.1579	380.4	1.661	0.1558	380.4	1.660	0.1431	380.2	1.655
30	0.1793	384.8	1.681	0.1609	384.6	1.675	0.1587	384.6	1.674	0.1458	384.4	1.669
35	0.1826	389.0	1.695	0.1638	388.9	1.689	0.1616	388.8	1.688	0.1485	388.7	1.683
40	0.1858	393.3	1.709	0.1668	393.1	1.703	0.1645	393.1	1.702	0.1512	393.0	1.697
45	0.1890	397.6	1.722	0.1697	397.5	1.716	0.1674	397.4	1.716	0.1539	397.3	1.711
50	0.1922	401.9	1.736	0.1726	401.8	1.730	0.1703	401.8	1.729	0.1565	401.7	1.724
55	0.1954	406.3	1.749	0.1755	406.2	1.743	0.1731	406.2	1.743	0.1592	406.0	1.738
60	0.1986	410.7	1.763	0.1784	410.6	1.757	0.1760	410.6	1.756	0.1618	410.5	1.751
65	0.2018	415.2	1.776	0.1812	415.1	1.770	0.1788	415.1	1.769	0.1644	414.9	1.765
70	0.2050	419.7	1.789	0.1841	419.6	1.783	0.1817	419.6	1.782	0.1670	419.4	1.778
75	0.2081	424.2	1.802	0.1870	424.1	1.796	0.1845	424.1	1.796	0.1697	424.0	1.791
80	0.2113	428.8	1.815	0.1898	428.7	1.809	0.1873	428.7	1.809	0.1723	428.6	1.804
85	0.2144	433.4	1.828	0.1927	433.3	1.822	0.1901	433.3	1.822	0.1749	433.2	1.817
90	0.2176	438.0	1.841	0.1955	437.9	1.835	0.1929	437.9	1.835	0.1775	437.8	1.830
95	0.2207	442.7	1.854	0.1983	442.6	1.848	0.1957	442.6	1.847	0.1800	442.5	1.843
100	0.2239	447.5	1.867	0.2012	447.4	1.861	0.1985	447.3	1.860	0.1826	447.3	1.855
105	0.2270	452.2	1.879	0.2040	452.1	1.874	0.2013	452.1	1.873	0.1852	452.0	1.868
110	0.2301	457.0	1.892	0.2068	456.9	1.886	0.2041	456.9	1.885	0.1878	456.8	1.881
115	0.2332	461.9	1.905	0.2096	461.8	1.899	0.2069	461.8	1.898	0.1903	461.7	1.893
120	0.2364	466.8	1.917	0.2125	466.7	1.911	0.2097	466.7	1.911	0.1929	466.6	1.906
125	0.2395	471.7	1.930	0.2153	471.6	1.924	0.2124	471.6	1.923	0.1955	471.5	1.918
130	0.2426	476.7	1.942	0.2181	476.6	1.936	0.2152	476.6	1.935	0.1980	476.5	1.931
135	0.2457	481.7	1.954	0.2209	481.6	1.948	0.2180	481.6	1.948	0.2006	481.5	1.943
140	0.2488	486.7	1.967	0.2237	486.6	1.961	0.2207	486.6	1.960	0.2032	486.6	1.955
145	0.2519	491.8	1.979	0.2265	491.7	1.973	0.2235	491.7	1.972	0.2057	491.7	1.968
150	0.2550	497.0	1.991	0.2293	496.9	1.985	0.2263	496.9	1.985	0.2083	496.8	1.980

	Absolute Pressure (kPa)											
	120 (2.7°C)			130 (4.7°C)			140 (6.6°C)			150 (8.4°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
5	0.1205	363.4	1.592	0.1107	363.1	1.587	–	–	–	–	–	–
10	0.1231	367.5	1.607	0.1131	367.2	1.602	0.1046	367.0	1.597	0.0972	366.8	1.593
15	0.1257	371.6	1.621	0.1155	371.4	1.617	0.1068	371.2	1.612	0.0993	371.0	1.608
20	0.1282	375.8	1.636	0.1179	375.6	1.631	0.1091	375.4	1.626	0.1014	375.2	1.622
25	0.1307	380.0	1.650	0.1203	379.8	1.645	0.1113	379.6	1.641	0.1035	379.4	1.636
30	0.1332	384.2	1.664	0.1226	384.1	1.659	0.1135	383.9	1.655	0.1056	383.7	1.651
35	0.1357	388.5	1.678	0.1249	388.3	1.673	0.1156	388.2	1.669	0.1076	388.0	1.665
40	0.1382	392.8	1.692	0.1272	392.6	1.687	0.1178	392.5	1.683	0.1096	392.3	1.679
45	0.1407	397.1	1.706	0.1295	397.0	1.701	0.1199	396.8	1.696	0.1116	396.7	1.692
50	0.1431	401.5	1.719	0.1318	401.4	1.715	0.1221	401.2	1.710	0.1136	401.1	1.706
55	0.1456	405.9	1.733	0.1340	405.8	1.728	0.1242	405.6	1.724	0.1156	405.5	1.720
60	0.1480	410.3	1.746	0.1363	410.2	1.742	0.1263	410.1	1.737	0.1176	409.9	1.733
65	0.1504	414.8	1.759	0.1385	414.7	1.755	0.1284	414.5	1.751	0.1196	414.4	1.746
70	0.1528	419.3	1.773	0.1408	419.2	1.768	0.1305	419.1	1.764	0.1215	418.9	1.760
75	0.1552	423.9	1.786	0.1430	423.7	1.781	0.1325	423.6	1.777	0.1235	423.5	1.773
80	0.1576	428.4	1.799	0.1452	428.3	1.794	0.1346	428.2	1.790	0.1254	428.1	1.786
85	0.1600	433.1	1.812	0.1475	433.0	1.807	0.1367	432.8	1.803	0.1274	432.7	1.799
90	0.1624	437.7	1.825	0.1497	437.6	1.820	0.1388	437.5	1.816	0.1293	437.4	1.812
95	0.1648	442.4	1.838	0.1519	442.3	1.833	0.1408	442.2	1.829	0.1312	442.1	1.825
100	0.1672	447.2	1.850	0.1541	447.1	1.846	0.1429	447.0	1.842	0.1331	446.9	1.838
105	0.1695	451.9	1.863	0.1563	451.8	1.859	0.1449	451.7	1.854	0.1351	451.6	1.850
110	0.1719	456.8	1.876	0.1585	456.7	1.871	0.1470	456.6	1.867	0.1370	456.5	1.863
115	0.1743	461.6	1.888	0.1607	461.5	1.884	0.1490	461.4	1.880	0.1389	461.3	1.876
120	0.1766	466.5	1.901	0.1628	466.4	1.896	0.1510	466.3	1.892	0.1408	466.2	1.888
125	0.1790	471.4	1.913	0.1650	471.4	1.909	0.1531	471.3	1.905	0.1427	471.2	1.901
130	0.1813	476.4	1.926	0.1672	476.3	1.921	0.1551	476.2	1.917	0.1446	476.2	1.913
135	0.1837	481.4	1.938	0.1694	481.4	1.934	0.1571	481.3	1.930	0.1465	481.2	1.926
140	0.1860	486.5	1.951	0.1716	486.4	1.946	0.1591	486.3	1.942	0.1484	486.3	1.938
145	0.1884	491.6	1.963	0.1737	491.5	1.958	0.1612	491.4	1.954	0.1503	491.4	1.950
150	0.1907	496.7	1.975	0.1759	496.7	1.971	0.1632	496.6	1.966	0.1522	496.5	1.962
155	0.1931	501.9	1.987	0.1781	501.8	1.983	0.1652	501.8	1.979	0.1540	501.7	1.975

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	160 (10.1°C)			170 (11.7°C)			180 (13.2°C)			190 (14.7°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
15	0.0927	370.7	1.603	0.0869	370.5	1.599	0.0817	370.3	1.596	0.0771	370.0	1.592
20	0.0947	375.0	1.618	0.0888	374.8	1.614	0.0835	374.5	1.610	0.0788	374.3	1.607
25	0.0967	379.2	1.632	0.0907	379.0	1.629	0.0853	378.8	1.625	0.0805	378.6	1.621
30	0.0986	383.5	1.647	0.0925	383.3	1.643	0.0871	383.1	1.639	0.0822	382.9	1.636
35	0.1006	387.8	1.661	0.0944	387.6	1.657	0.0888	387.4	1.653	0.0839	387.3	1.650
40	0.1025	392.1	1.675	0.0962	392.0	1.671	0.0906	391.8	1.667	0.0855	391.6	1.664
45	0.1044	396.5	1.688	0.0980	396.3	1.685	0.0923	396.2	1.681	0.0872	396.0	1.678
50	0.1063	400.9	1.702	0.0998	400.7	1.699	0.0940	400.6	1.695	0.0888	400.4	1.692
55	0.1081	405.3	1.716	0.1015	405.2	1.712	0.0957	405.0	1.709	0.0904	404.9	1.705
60	0.1100	409.8	1.729	0.1033	409.7	1.726	0.0973	409.5	1.722	0.0920	409.4	1.719
65	0.1119	414.3	1.743	0.1050	414.2	1.739	0.0990	414.0	1.736	0.0936	413.9	1.732
70	0.1137	418.8	1.756	0.1068	418.7	1.752	0.1007	418.6	1.749	0.0952	418.4	1.746
75	0.1155	423.4	1.769	0.1085	423.3	1.766	0.1023	423.1	1.762	0.0967	423.0	1.759
80	0.1174	428.0	1.782	0.1103	427.9	1.779	0.1039	427.7	1.775	0.0983	427.6	1.772
85	0.1192	432.6	1.795	0.1120	432.5	1.792	0.1056	432.4	1.788	0.0999	432.3	1.785
90	0.1210	437.3	1.808	0.1137	437.2	1.805	0.1072	437.1	1.801	0.1014	437.0	1.798
95	0.1228	442.0	1.821	0.1154	441.9	1.818	0.1088	441.8	1.814	0.1029	441.7	1.811
100	0.1246	446.8	1.834	0.1171	446.7	1.830	0.1105	446.6	1.827	0.1045	446.5	1.824
105	0.1264	451.5	1.847	0.1188	451.4	1.843	0.1121	451.3	1.840	0.1060	451.2	1.837
110	0.1282	456.4	1.859	0.1205	456.3	1.856	0.1137	456.2	1.853	0.1076	456.1	1.849
115	0.1300	461.2	1.872	0.1222	461.1	1.869	0.1153	461.1	1.865	0.1091	461.0	1.862
120	0.1318	466.1	1.885	0.1239	466.1	1.881	0.1169	466.0	1.878	0.1106	465.9	1.875
125	0.1336	471.1	1.897	0.1256	471.0	1.894	0.1185	470.9	1.890	0.1121	470.8	1.887
130	0.1354	476.1	1.910	0.1273	476.0	1.906	0.1201	475.9	1.903	0.1136	475.8	1.900
135	0.1372	481.1	1.922	0.1290	481.0	1.918	0.1217	480.9	1.915	0.1151	480.9	1.912
140	0.1390	486.2	1.934	0.1307	486.1	1.931	0.1233	486.0	1.928	0.1167	485.9	1.924
145	0.1407	491.3	1.947	0.1323	491.2	1.943	0.1249	491.1	1.940	0.1182	491.0	1.937
150	0.1425	496.4	1.959	0.1340	496.3	1.955	0.1264	496.3	1.952	0.1197	496.2	1.949
155	0.1443	501.6	1.971	0.1357	501.5	1.968	0.1280	501.5	1.964	0.1212	501.4	1.961
160	0.1461	506.8	1.983	0.1373	506.8	1.980	0.1296	506.7	1.976	0.1227	506.6	1.973
165	0.1478	512.1	1.995	0.1390	512.0	1.992	0.1312	512.0	1.989	0.1242	511.9	1.985

	Absolute Pressure (kPa)											
	200 (16.1°C)			210 (17.5°C)			220 (18.8°C)			230 (20.0°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
20	0.0746	374.1	1.604	0.0707	373.9	1.6	0.0673	373.6	1.597	–	–	–
25	0.0762	378.4	1.618	0.0723	378.2	1.615	0.0688	378.0	1.612	0.0655	377.8	1.609
30	0.0778	382.7	1.633	0.0739	382.5	1.629	0.0703	382.3	1.626	0.0670	382.1	1.623
35	0.0794	387.1	1.647	0.0754	386.9	1.644	0.0718	386.7	1.641	0.0684	386.5	1.638
40	0.0810	391.5	1.661	0.0769	391.3	1.658	0.0732	391.1	1.655	0.0698	390.9	1.652
45	0.0826	395.9	1.675	0.0784	395.7	1.672	0.0747	395.5	1.669	0.0712	395.4	1.666
50	0.0841	400.3	1.689	0.0799	400.1	1.686	0.0761	400.0	1.683	0.0726	399.8	1.680
55	0.0857	404.7	1.702	0.0814	404.6	1.699	0.0775	404.4	1.696	0.0739	404.3	1.694
60	0.0872	409.2	1.716	0.0829	409.1	1.713	0.0789	408.9	1.710	0.0753	408.8	1.707
65	0.0887	413.8	1.729	0.0843	413.6	1.726	0.0803	413.5	1.724	0.0766	413.3	1.721
70	0.0902	418.3	1.743	0.0857	418.2	1.74	0.0817	418.0	1.737	0.0780	417.9	1.734
75	0.0917	422.9	1.756	0.0872	422.8	1.753	0.0831	422.6	1.750	0.0793	422.5	1.748
80	0.0932	427.5	1.769	0.0886	427.4	1.766	0.0844	427.3	1.763	0.0806	427.2	1.761
85	0.0947	432.2	1.782	0.0900	432.1	1.779	0.0858	431.9	1.777	0.0819	431.8	1.774
90	0.0962	436.9	1.795	0.0914	436.7	1.792	0.0871	436.6	1.790	0.0832	436.5	1.787
95	0.0976	441.6	1.808	0.0929	441.5	1.805	0.0885	441.4	1.803	0.0845	441.3	1.800
100	0.0991	446.3	1.821	0.0943	446.2	1.818	0.0898	446.1	1.815	0.0858	446.0	1.813
105	0.1006	451.2	1.834	0.0957	451.1	1.831	0.0912	451.0	1.828	0.0871	450.9	1.826
110	0.1020	456.0	1.847	0.0970	455.9	1.844	0.0925	455.8	1.841	0.0884	455.7	1.838
115	0.1035	460.9	1.859	0.0984	460.8	1.856	0.0938	460.7	1.854	0.0896	460.6	1.851
120	0.1049	465.8	1.872	0.0998	465.7	1.869	0.0952	465.6	1.866	0.0909	465.5	1.864
125	0.1064	470.7	1.884	0.1012	470.7	1.881	0.0965	470.6	1.879	0.0922	470.5	1.876
130	0.1078	475.7	1.897	0.1026	475.7	1.894	0.0978	475.6	1.891	0.0935	475.5	1.889
135	0.1093	480.8	1.909	0.1040	480.7	1.906	0.0991	480.6	1.904	0.0947	480.5	1.901
140	0.1107	485.8	1.922	0.1053	485.8	1.919	0.1004	485.7	1.916	0.0960	485.6	1.913
145	0.1121	491.0	1.934	0.1067	490.9	1.931	0.1018	490.8	1.928	0.0972	490.7	1.926
150	0.1136	496.1	1.946	0.1081	496.0	1.943	0.1031	496.0	1.941	0.0985	495.9	1.938
155	0.1150	501.3	1.958	0.1094	501.2	1.955	0.1044	501.2	1.953	0.0997	501.1	1.950
160	0.1164	506.6	1.970	0.1108	506.5	1.968	0.1057	506.4	1.965	0.1010	506.3	1.962
165	0.1179	511.8	1.983	0.1122	511.8	1.98	0.1070	511.7	1.977	0.1022	511.6	1.975
170	0.1193	517.1	1.995	0.1135	517.1	1.992	0.1083	517.0	1.989	0.1035	516.9	1.987

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	240 (21.3°C)			250 (22.5°C)			260 (23.6°C)			270 (24.7°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
25	0.0626	377.6	1.606	0.0598	377.3	1.603	0.0573	377.1	1.601	0.0549	376.9	1.598
30	0.0640	381.9	1.621	0.0612	381.7	1.618	0.0586	381.5	1.615	0.0562	381.3	1.613
35	0.0653	386.3	1.635	0.0625	386.1	1.632	0.0599	385.9	1.630	0.0575	385.8	1.627
40	0.0667	390.8	1.649	0.0638	390.6	1.647	0.0612	390.4	1.644	0.0587	390.2	1.641
45	0.0680	395.2	1.663	0.0651	395.0	1.661	0.0624	394.8	1.658	0.0599	394.7	1.656
50	0.0694	399.7	1.677	0.0664	399.5	1.675	0.0637	399.3	1.672	0.0612	399.2	1.670
55	0.0707	404.1	1.691	0.0677	404.0	1.688	0.0649	403.8	1.686	0.0623	403.7	1.683
60	0.0720	408.7	1.705	0.0689	408.5	1.702	0.0661	408.4	1.700	0.0635	408.2	1.697
65	0.0733	413.2	1.718	0.0702	413.1	1.716	0.0673	412.9	1.713	0.0647	412.8	1.711
70	0.0746	417.8	1.732	0.0714	417.6	1.729	0.0685	417.5	1.727	0.0658	417.4	1.724
75	0.0758	422.4	1.745	0.0727	422.3	1.742	0.0697	422.1	1.740	0.0670	422.0	1.738
80	0.0771	427.0	1.758	0.0739	426.9	1.756	0.0709	426.8	1.753	0.0681	426.7	1.751
85	0.0784	431.7	1.771	0.0751	431.6	1.769	0.0721	431.5	1.766	0.0693	431.4	1.764
90	0.0796	436.4	1.784	0.0763	436.3	1.782	0.0732	436.2	1.780	0.0704	436.1	1.777
95	0.0809	441.2	1.797	0.0775	441.0	1.795	0.0744	440.9	1.793	0.0715	440.8	1.790
100	0.0821	445.9	1.810	0.0787	445.8	1.808	0.0756	445.7	1.805	0.0726	445.6	1.803
105	0.0833	450.8	1.823	0.0799	450.7	1.821	0.0767	450.6	1.818	0.0738	450.5	1.816
110	0.0846	455.6	1.836	0.0811	455.5	1.833	0.0778	455.4	1.831	0.0749	455.3	1.829
115	0.0858	460.5	1.848	0.0823	460.4	1.846	0.0790	460.3	1.844	0.0760	460.2	1.842
120	0.0870	465.4	1.861	0.0834	465.3	1.859	0.0801	465.2	1.856	0.0771	465.1	1.854
125	0.0882	470.4	1.874	0.0846	470.3	1.871	0.0813	470.2	1.869	0.0782	470.1	1.867
130	0.0895	475.4	1.886	0.0858	475.3	1.884	0.0824	475.2	1.881	0.0792	475.1	1.879
135	0.0907	480.4	1.899	0.0869	480.4	1.896	0.0835	480.3	1.894	0.0803	480.2	1.892
140	0.0919	485.5	1.911	0.0881	485.4	1.909	0.0846	485.4	1.906	0.0814	485.3	1.904
145	0.0931	490.6	1.923	0.0893	490.6	1.921	0.0858	490.5	1.919	0.0825	490.4	1.916
150	0.0943	495.8	1.936	0.0904	495.7	1.933	0.0869	495.7	1.931	0.0836	495.6	1.929
155	0.0955	501.0	1.948	0.0916	500.9	1.945	0.0880	500.9	1.943	0.0847	500.8	1.941
160	0.0967	506.3	1.960	0.0928	506.2	1.958	0.0891	506.1	1.955	0.0857	506.0	1.953
165	0.0979	511.5	1.972	0.0939	511.5	1.970	0.0902	511.4	1.967	0.0868	511.3	1.965
170	0.0991	516.9	1.984	0.0951	516.8	1.982	0.0913	516.7	1.980	0.0879	516.7	1.977
175	0.1003	522.2	1.996	0.0962	522.2	1.994	0.0924	522.1	1.992	0.0890	522.0	1.989

	Absolute Pressure (kPa)											
	280 (25.8°C)			290 (26.9°C)			300 (27.9°C)			310 (28.9°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
30	0.0540	381.1	1.610	0.0519	380.9	1.608	0.0500	380.7	1.605	0.0482	380.5	1.603
35	0.0552	385.6	1.625	0.0531	385.4	1.622	0.0512	385.2	1.620	0.0494	385.0	1.618
40	0.0564	390.0	1.639	0.0543	389.8	1.637	0.0523	389.7	1.634	0.0505	389.5	1.632
45	0.0576	394.5	1.653	0.0555	394.3	1.651	0.0535	394.2	1.649	0.0516	394.0	1.646
50	0.0588	399.0	1.667	0.0566	398.8	1.665	0.0546	398.7	1.663	0.0527	398.5	1.661
55	0.0600	403.5	1.681	0.0577	403.4	1.679	0.0557	403.2	1.677	0.0537	403.1	1.675
60	0.0611	408.1	1.695	0.0589	407.9	1.693	0.0567	407.8	1.690	0.0548	407.6	1.688
65	0.0622	412.6	1.709	0.0600	412.5	1.706	0.0578	412.4	1.704	0.0558	412.2	1.702
70	0.0634	417.2	1.722	0.0610	417.1	1.720	0.0589	417.0	1.718	0.0569	416.8	1.716
75	0.0645	421.9	1.735	0.0621	421.8	1.733	0.0599	421.6	1.731	0.0579	421.5	1.729
80	0.0656	426.5	1.749	0.0632	426.4	1.747	0.0610	426.3	1.744	0.0589	426.2	1.742
85	0.0667	431.2	1.762	0.0643	431.1	1.760	0.0620	431.0	1.758	0.0599	430.9	1.756
90	0.0678	436.0	1.775	0.0653	435.9	1.773	0.0630	435.7	1.771	0.0609	435.6	1.769
95	0.0689	440.7	1.788	0.0664	440.6	1.786	0.0641	440.5	1.784	0.0619	440.4	1.782
100	0.0699	445.5	1.801	0.0674	445.4	1.799	0.0651	445.3	1.797	0.0629	445.2	1.795
105	0.0710	450.3	1.814	0.0685	450.2	1.812	0.0661	450.1	1.810	0.0639	450.0	1.808
110	0.0721	455.2	1.827	0.0695	455.1	1.825	0.0671	455.0	1.823	0.0648	454.9	1.821
115	0.0731	460.1	1.839	0.0705	460.0	1.837	0.0681	459.9	1.835	0.0658	459.8	1.833
120	0.0742	465.1	1.852	0.0716	465.0	1.850	0.0691	464.9	1.848	0.0668	464.8	1.846
125	0.0753	470.0	1.865	0.0726	469.9	1.863	0.0701	469.9	1.860	0.0677	469.8	1.859
130	0.0763	475.1	1.877	0.0736	475.0	1.875	0.0711	474.9	1.873	0.0687	474.8	1.871
135	0.0774	480.1	1.890	0.0746	480.0	1.887	0.0721	479.9	1.885	0.0697	479.9	1.884
140	0.0784	485.2	1.902	0.0756	485.1	1.900	0.0730	485.0	1.898	0.0706	485.0	1.896
145	0.0795	490.3	1.914	0.0767	490.2	1.912	0.0740	490.2	1.910	0.0716	490.1	1.908
150	0.0805	495.5	1.927	0.0777	495.4	1.925	0.0750	495.3	1.923	0.0725	495.3	1.921
155	0.0816	500.7	1.939	0.0787	500.6	1.937	0.0760	500.6	1.935	0.0735	500.5	1.933
160	0.0826	506.0	1.951	0.0797	505.9	1.949	0.0770	505.8	1.947	0.0744	505.7	1.945
165	0.0836	511.3	1.963	0.0807	511.2	1.961	0.0779	511.1	1.959	0.0754	511.0	1.957
170	0.0847	516.6	1.975	0.0817	516.5	1.973	0.0789	516.4	1.971	0.0763	516.4	1.969
175	0.0857	522.0	1.987	0.0827	521.9	1.985	0.0799	521.8	1.983	0.0772	521.7	1.981
180	0.0867	527.4	1.999	0.0837	527.3	1.997	0.0808	527.2	1.995	0.0782	527.2	1.993

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	320 (29.9°C)			330 (30.9°C)			340 (31.8°C)			350 (32.7°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
30	0.0465	380.3	1.601	–	–	–	–	–	–	–	–	–
35	0.0476	384.8	1.615	0.0460	384.6	1.613	0.0445	384.3	1.611	0.0431	384.1	1.609
40	0.0487	389.3	1.630	0.0471	389.1	1.628	0.0456	388.9	1.626	0.0441	388.7	1.624
45	0.0498	393.8	1.644	0.0481	393.6	1.642	0.0466	393.4	1.640	0.0451	393.3	1.638
50	0.0509	398.3	1.658	0.0492	398.2	1.656	0.0476	398.0	1.654	0.0461	397.8	1.652
55	0.0519	402.9	1.672	0.0502	402.7	1.670	0.0486	402.6	1.668	0.0471	402.4	1.666
60	0.0529	407.5	1.686	0.0512	407.3	1.684	0.0496	407.2	1.682	0.0480	407.0	1.680
65	0.0539	412.1	1.700	0.0522	411.9	1.698	0.0505	411.8	1.696	0.0490	411.6	1.694
70	0.0550	416.7	1.714	0.0532	416.6	1.712	0.0515	416.4	1.710	0.0499	416.3	1.708
75	0.0559	421.4	1.727	0.0541	421.2	1.725	0.0524	421.1	1.723	0.0508	421.0	1.721
80	0.0569	426.0	1.740	0.0551	425.9	1.738	0.0534	425.8	1.737	0.0517	425.7	1.735
85	0.0579	430.8	1.754	0.0561	430.6	1.752	0.0543	430.5	1.750	0.0527	430.4	1.748
90	0.0589	435.5	1.767	0.0570	435.4	1.765	0.0552	435.3	1.763	0.0536	435.2	1.761
95	0.0599	440.3	1.780	0.0579	440.2	1.778	0.0561	440.1	1.776	0.0544	440.0	1.774
100	0.0608	445.1	1.793	0.0589	445.0	1.791	0.0571	444.9	1.789	0.0553	444.8	1.787
105	0.0618	449.9	1.806	0.0598	449.8	1.804	0.0580	449.7	1.802	0.0562	449.6	1.800
110	0.0627	454.8	1.819	0.0607	454.7	1.817	0.0589	454.6	1.815	0.0571	454.5	1.813
115	0.0637	459.7	1.831	0.0616	459.6	1.829	0.0598	459.5	1.828	0.0580	459.4	1.826
120	0.0646	464.7	1.844	0.0626	464.6	1.842	0.0606	464.5	1.840	0.0588	464.4	1.839
125	0.0655	469.7	1.857	0.0635	469.6	1.855	0.0615	469.5	1.853	0.0597	469.4	1.851
130	0.0665	474.7	1.869	0.0644	474.6	1.867	0.0624	474.5	1.866	0.0606	474.4	1.864
135	0.0674	479.8	1.882	0.0653	479.7	1.880	0.0633	479.6	1.878	0.0614	479.5	1.876
140	0.0683	484.9	1.894	0.0662	484.8	1.892	0.0642	484.7	1.890	0.0623	484.6	1.889
145	0.0693	490.0	1.906	0.0671	489.9	1.905	0.0651	489.8	1.903	0.0631	489.8	1.901
150	0.0702	495.2	1.919	0.0680	495.1	1.917	0.0659	495.0	1.915	0.0640	495.0	1.913
155	0.0711	500.4	1.931	0.0689	500.3	1.929	0.0668	500.3	1.927	0.0648	500.2	1.926
160	0.0720	505.7	1.943	0.0698	505.6	1.941	0.0677	505.5	1.940	0.0657	505.4	1.938
165	0.0729	511.0	1.955	0.0707	510.9	1.954	0.0685	510.8	1.952	0.0665	510.7	1.950
170	0.0739	516.3	1.968	0.0716	516.2	1.966	0.0694	516.2	1.964	0.0674	516.1	1.962
175	0.0748	521.7	1.980	0.0724	521.6	1.978	0.0703	521.5	1.976	0.0682	521.5	1.974
180	0.0757	527.1	1.992	0.0733	527.0	1.990	0.0711	527.0	1.988	0.0690	526.9	1.986

	Absolute Pressure (kPa)											
	360 (33.6°C)			370 (34.5°C)			380 (35.6°C)			390 (36.2°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
35	0.0417	383.9	1.607	0.0404	383.7	1.605	–	–	–	–	–	–
40	0.0427	388.5	1.622	0.0414	388.3	1.620	0.0402	388.1	1.618	0.0390	387.9	1.616
45	0.0437	393.1	1.636	0.0424	392.9	1.634	0.0411	392.7	1.632	0.0399	392.5	1.630
50	0.0447	397.7	1.650	0.0433	397.5	1.649	0.0421	397.3	1.647	0.0409	397.1	1.645
55	0.0456	402.3	1.665	0.0443	402.1	1.663	0.0430	401.9	1.661	0.0418	401.8	1.659
60	0.0466	406.9	1.679	0.0452	406.7	1.677	0.0439	406.6	1.675	0.0426	406.4	1.673
65	0.0475	411.5	1.692	0.0461	411.4	1.690	0.0448	411.2	1.689	0.0435	411.1	1.687
70	0.0484	416.2	1.706	0.0470	416.0	1.704	0.0457	415.9	1.702	0.0444	415.7	1.701
75	0.0493	420.8	1.720	0.0479	420.7	1.718	0.0465	420.6	1.716	0.0452	420.4	1.714
80	0.0502	425.5	1.733	0.0488	425.4	1.731	0.0474	425.3	1.729	0.0461	425.2	1.728
85	0.0511	430.3	1.746	0.0496	430.2	1.745	0.0482	430.0	1.743	0.0469	429.9	1.741
90	0.0520	435.0	1.759	0.0505	434.9	1.758	0.0491	434.8	1.756	0.0477	434.7	1.754
95	0.0528	439.8	1.773	0.0513	439.7	1.771	0.0499	439.6	1.769	0.0485	439.5	1.768
100	0.0537	444.7	1.786	0.0522	444.6	1.784	0.0507	444.5	1.782	0.0493	444.3	1.781
105	0.0546	449.5	1.799	0.0530	449.4	1.797	0.0515	449.3	1.795	0.0501	449.2	1.794
110	0.0554	454.4	1.811	0.0539	454.3	1.810	0.0524	454.2	1.808	0.0509	454.1	1.806
115	0.0563	459.4	1.824	0.0547	459.3	1.823	0.0532	459.2	1.821	0.0517	459.1	1.819
120	0.0571	464.3	1.837	0.0555	464.2	1.835	0.0540	464.1	1.834	0.0525	464.0	1.832
125	0.0580	469.3	1.850	0.0563	469.2	1.848	0.0548	469.1	1.846	0.0533	469.0	1.845
130	0.0588	474.4	1.862	0.0572	474.3	1.860	0.0556	474.2	1.859	0.0541	474.1	1.857
135	0.0596	479.4	1.875	0.0580	479.3	1.873	0.0564	479.3	1.871	0.0549	479.2	1.870
140	0.0605	484.5	1.887	0.0588	484.5	1.885	0.0572	484.4	1.884	0.0557	484.3	1.882
145	0.0613	489.7	1.899	0.0596	489.6	1.898	0.0580	489.5	1.896	0.0564	489.4	1.895
150	0.0621	494.9	1.912	0.0604	494.8	1.910	0.0588	494.7	1.909	0.0572	494.6	1.907
155	0.0630	500.1	1.924	0.0612	500.0	1.922	0.0595	499.9	1.921	0.0580	499.9	1.919
160	0.0638	505.4	1.936	0.0620	505.3	1.935	0.0603	505.2	1.933	0.0587	505.1	1.932
165	0.0646	510.7	1.948	0.0628	510.6	1.947	0.0611	510.5	1.945	0.0595	510.5	1.944
170	0.0654	516.0	1.961	0.0636	515.9	1.959	0.0619	515.9	1.957	0.0603	515.8	1.956
175	0.0663	521.4	1.973	0.0644	521.3	1.971	0.0627	521.3	1.969	0.0610	521.2	1.968
180	0.0671	526.8	1.985	0.0652	526.8	1.983	0.0634	526.7	1.982	0.0618	526.6	1.980
185	0.0679	532.3	1.997	0.0660	532.2	1.995	0.0642	532.2	1.994	0.0625	532.1	1.992

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	400 (37.0°C)			425 (39.0°C)			450 (40.9°C)			475 (42.8°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
40	0.0379	387.7	1.614	0.0353	387.2	1.609	–	–	–	–	–	–
45	0.0388	392.3	1.629	0.0362	391.8	1.624	0.0339	391.3	1.620	0.0318	390.8	1.616
50	0.0397	396.9	1.643	0.0371	396.5	1.639	0.0347	396.0	1.634	0.0326	395.6	1.630
55	0.0406	401.6	1.657	0.0379	401.2	1.653	0.0356	400.7	1.649	0.0334	400.3	1.645
60	0.0415	406.2	1.671	0.0388	405.8	1.667	0.0364	405.4	1.663	0.0342	405.0	1.659
65	0.0423	410.9	1.685	0.0396	410.5	1.681	0.0371	410.1	1.677	0.0350	409.8	1.673
70	0.0432	415.6	1.699	0.0404	415.2	1.695	0.0379	414.9	1.691	0.0357	414.5	1.687
75	0.0440	420.3	1.713	0.0412	420.0	1.709	0.0387	419.6	1.705	0.0364	419.3	1.701
80	0.0448	425.0	1.726	0.0420	424.7	1.722	0.0394	424.4	1.718	0.0371	424.0	1.715
85	0.0456	429.8	1.740	0.0427	429.5	1.736	0.0402	429.2	1.732	0.0379	428.9	1.728
90	0.0464	434.6	1.753	0.0435	434.3	1.749	0.0409	434.0	1.745	0.0386	433.7	1.742
95	0.0472	439.4	1.766	0.0443	439.1	1.762	0.0416	438.8	1.758	0.0393	438.5	1.755
100	0.0480	444.2	1.779	0.0450	444.0	1.775	0.0423	443.7	1.772	0.0399	443.4	1.768
105	0.0488	449.1	1.792	0.0458	448.8	1.788	0.0431	448.6	1.785	0.0406	448.3	1.781
110	0.0496	454.0	1.805	0.0465	453.8	1.801	0.0438	453.5	1.797	0.0413	453.3	1.794
115	0.0504	459.0	1.818	0.0472	458.7	1.814	0.0445	458.5	1.810	0.0420	458.2	1.807
120	0.0511	463.9	1.830	0.0480	463.7	1.827	0.0452	463.5	1.823	0.0426	463.2	1.820
125	0.0519	469.0	1.843	0.0487	468.7	1.839	0.0459	468.5	1.836	0.0433	468.3	1.832
130	0.0527	474.0	1.856	0.0494	473.8	1.852	0.0465	473.6	1.848	0.0440	473.3	1.845
135	0.0534	479.1	1.868	0.0502	478.9	1.865	0.0472	478.7	1.861	0.0446	478.4	1.858
140	0.0542	484.2	1.881	0.0509	484.0	1.877	0.0479	483.8	1.874	0.0453	483.6	1.870
145	0.0550	489.4	1.893	0.0516	489.2	1.889	0.0486	489.0	1.886	0.0459	488.7	1.883
150	0.0557	494.6	1.905	0.0523	494.4	1.902	0.0493	494.2	1.898	0.0466	494.0	1.895
155	0.0565	499.8	1.918	0.0530	499.6	1.914	0.0500	499.4	1.911	0.0472	499.2	1.907
160	0.0572	505.1	1.930	0.0537	504.9	1.926	0.0506	504.7	1.923	0.0478	504.5	1.920
165	0.0580	510.4	1.942	0.0544	510.2	1.939	0.0513	510.0	1.935	0.0485	509.8	1.932
170	0.0587	515.7	1.954	0.0551	515.5	1.951	0.0520	515.4	1.947	0.0491	515.2	1.944
175	0.0594	521.1	1.966	0.0558	520.9	1.963	0.0526	520.8	1.959	0.0498	520.6	1.956
180	0.0602	526.6	1.979	0.0565	526.4	1.975	0.0533	526.2	1.972	0.0504	526.0	1.968
185	0.0609	532.0	1.991	0.0572	531.9	1.987	0.0540	531.7	1.984	0.0510	531.5	1.980
190	0.0617	537.5	2.002	0.0579	537.4	1.999	0.0546	537.2	1.996	0.0517	537.0	1.992

	Absolute Pressure (kPa)											
	500 (44.5°C)			525 (46.2°C)			550 (47.9°C)			575 (49.4°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
45	0.0300	390.3	1.612	–	–	–	–	–	–	–	–	–
50	0.0307	395.1	1.626	0.0290	394.6	1.623	0.0274	394.1	1.619	0.0260	393.6	1.615
55	0.0315	399.8	1.641	0.0298	399.4	1.637	0.0282	398.9	1.634	0.0267	398.4	1.630
60	0.0323	404.6	1.655	0.0305	404.2	1.652	0.0289	403.7	1.648	0.0274	403.3	1.645
65	0.0330	409.4	1.670	0.0312	409.0	1.666	0.0296	408.5	1.663	0.0281	408.1	1.659
70	0.0337	414.1	1.684	0.0319	413.7	1.680	0.0302	413.4	1.677	0.0287	413.0	1.673
75	0.0344	418.9	1.697	0.0326	418.6	1.694	0.0309	418.2	1.691	0.0294	417.8	1.688
80	0.0351	423.7	1.711	0.0332	423.4	1.708	0.0316	423.0	1.705	0.0300	422.7	1.701
85	0.0358	428.5	1.725	0.0339	428.2	1.721	0.0322	427.9	1.718	0.0306	427.5	1.715
90	0.0365	433.4	1.738	0.0346	433.1	1.735	0.0328	432.7	1.732	0.0312	432.4	1.729
95	0.0371	438.2	1.751	0.0352	437.9	1.748	0.0334	437.6	1.745	0.0318	437.3	1.742
100	0.0378	443.1	1.765	0.0358	442.8	1.761	0.0341	442.6	1.758	0.0324	442.3	1.755
105	0.0384	448.0	1.778	0.0365	447.8	1.775	0.0347	447.5	1.771	0.0330	447.2	1.769
110	0.0391	453.0	1.791	0.0371	452.7	1.788	0.0353	452.5	1.785	0.0336	452.2	1.782
115	0.0397	458.0	1.804	0.0377	457.7	1.801	0.0359	457.5	1.797	0.0342	457.2	1.795
120	0.0404	463.0	1.816	0.0383	462.7	1.813	0.0364	462.5	1.810	0.0347	462.3	1.807
125	0.0410	468.0	1.829	0.0389	467.8	1.826	0.0370	467.6	1.823	0.0353	467.3	1.820
130	0.0416	473.1	1.842	0.0395	472.9	1.839	0.0376	472.6	1.836	0.0359	472.4	1.833
135	0.0423	478.2	1.854	0.0401	478.0	1.851	0.0382	477.8	1.848	0.0364	477.5	1.846
140	0.0429	483.4	1.867	0.0407	483.1	1.864	0.0388	482.9	1.861	0.0370	482.7	1.858
145	0.0435	488.5	1.879	0.0413	488.3	1.876	0.0393	488.1	1.874	0.0375	487.9	1.871
150	0.0441	493.8	1.892	0.0419	493.6	1.889	0.0399	493.4	1.886	0.0381	493.2	1.883
155	0.0447	499.0	1.904	0.0425	498.8	1.901	0.0405	498.6	1.898	0.0386	498.4	1.896
160	0.0454	504.3	1.917	0.0431	504.1	1.914	0.0410	503.9	1.911	0.0392	503.7	1.908
165	0.0460	509.6	1.929	0.0437	509.5	1.926	0.0416	509.3	1.923	0.0397	509.1	1.920
170	0.0466	515.0	1.941	0.0443	514.8	1.938	0.0422	514.6	1.935	0.0402	514.5	1.932
175	0.0472	520.4	1.953	0.0448	520.2	1.950	0.0427	520.1	1.947	0.0408	519.9	1.945
180	0.0478	525.9	1.965	0.0454	525.7	1.962	0.0433	525.5	1.959	0.0413	525.3	1.957
185	0.0484	531.3	1.977	0.0460	531.2	1.974	0.0438	531.0	1.971	0.0418	530.8	1.969
190	0.0490	536.9	1.989	0.0466	536.7	1.986	0.0444	536.5	1.983	0.0424	536.4	1.981
195	0.0496	542.4	2.001	0.0471	542.3	1.998	0.0449	542.1	1.995	0.0429	541.9	1.993

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	600 (51.0°C)			625 (52.5°C)			650 (53.9°C)			675 (55.3°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
55	0.0254	397.9	1.627	0.0241	397.5	1.623	0.0230	396.9	1.620	–	–	–
60	0.0261	402.8	1.641	0.0248	402.4	1.638	0.0237	401.9	1.635	0.0226	401.4	1.632
65	0.0267	407.7	1.656	0.0255	407.3	1.653	0.0243	406.8	1.650	0.0232	406.4	1.647
70	0.0274	412.6	1.670	0.0261	412.2	1.667	0.0249	411.8	1.664	0.0238	411.3	1.661
75	0.0280	417.4	1.684	0.0267	417.1	1.681	0.0255	416.7	1.678	0.0244	416.3	1.675
80	0.0286	422.3	1.698	0.0273	422.0	1.695	0.0261	421.6	1.692	0.0250	421.2	1.690
85	0.0292	427.2	1.712	0.0279	426.9	1.709	0.0267	426.5	1.706	0.0255	426.2	1.703
90	0.0298	432.1	1.726	0.0284	431.8	1.723	0.0272	431.5	1.720	0.0261	431.1	1.717
95	0.0304	437.0	1.739	0.0290	436.7	1.736	0.0278	436.4	1.733	0.0266	436.1	1.731
100	0.0309	442.0	1.752	0.0296	441.7	1.750	0.0283	441.4	1.747	0.0271	441.1	1.744
105	0.0315	446.9	1.766	0.0301	446.7	1.763	0.0288	446.4	1.760	0.0277	446.1	1.758
110	0.0321	451.9	1.779	0.0307	451.7	1.776	0.0294	451.4	1.773	0.0282	451.1	1.771
115	0.0326	457.0	1.792	0.0312	456.7	1.789	0.0299	456.4	1.786	0.0287	456.2	1.784
120	0.0332	462.0	1.805	0.0317	461.8	1.802	0.0304	461.5	1.799	0.0292	461.2	1.797
125	0.0337	467.1	1.818	0.0323	466.8	1.815	0.0309	466.6	1.812	0.0297	466.4	1.810
130	0.0343	472.2	1.830	0.0328	472.0	1.828	0.0314	471.7	1.825	0.0302	471.5	1.823
135	0.0348	477.3	1.843	0.0333	477.1	1.840	0.0319	476.9	1.838	0.0307	476.6	1.835
140	0.0353	482.5	1.856	0.0338	482.3	1.853	0.0324	482.1	1.850	0.0311	481.8	1.848
145	0.0359	487.7	1.868	0.0343	487.5	1.865	0.0329	487.3	1.863	0.0316	487.1	1.861
150	0.0364	492.9	1.881	0.0349	492.7	1.878	0.0334	492.5	1.875	0.0321	492.3	1.873
155	0.0369	498.2	1.893	0.0354	498.0	1.890	0.0339	497.8	1.888	0.0326	497.6	1.885
160	0.0374	503.5	1.905	0.0359	503.3	1.903	0.0344	503.1	1.900	0.0331	503.0	1.898
165	0.0380	508.9	1.918	0.0364	508.7	1.915	0.0349	508.5	1.913	0.0335	508.3	1.910
170	0.0385	514.3	1.930	0.0369	514.1	1.927	0.0354	513.9	1.925	0.0340	513.7	1.922
175	0.0390	519.7	1.942	0.0374	519.5	1.939	0.0359	519.3	1.937	0.0345	519.2	1.935
180	0.0395	525.2	1.954	0.0379	525.0	1.952	0.0363	524.8	1.949	0.0349	524.6	1.947
185	0.0400	530.7	1.966	0.0384	530.5	1.964	0.0368	530.3	1.961	0.0354	530.1	1.959
190	0.0405	536.2	1.978	0.0388	536.0	1.976	0.0373	535.9	1.973	0.0358	535.7	1.971
195	0.0410	541.8	1.990	0.0393	541.6	1.988	0.0378	541.5	1.985	0.0363	541.3	1.983
200	0.0416	547.4	2.002	0.0398	547.2	2.000	0.0382	547.1	1.997	0.0368	546.9	1.995
205	0.0421	553.1	2.014	0.0403	552.9	2.012	0.0387	552.7	2.009	0.0372	552.6	2.007

	Absolute Pressure (kPa)											
	700 (56.6°C)			725 (58.0°C)			750 (59.3°C)			775 (60.5°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
60	0.0216	400.9	1.629	0.0207	400.4	1.626	0.0198	399.9	1.622	–	–	–
65	0.0222	405.9	1.644	0.0213	405.5	1.641	0.0204	405.0	1.638	0.0195	404.5	1.635
70	0.0228	410.9	1.658	0.0218	410.5	1.655	0.0209	410.0	1.652	0.0201	409.6	1.650
75	0.0234	415.9	1.673	0.0224	415.5	1.670	0.0215	415.1	1.667	0.0207	414.7	1.664
80	0.0239	420.9	1.687	0.0230	420.5	1.684	0.0220	420.1	1.681	0.0212	419.7	1.679
85	0.0245	425.8	1.701	0.0235	425.5	1.698	0.0226	425.1	1.695	0.0217	424.7	1.693
90	0.0250	430.8	1.715	0.0240	430.5	1.712	0.0231	430.1	1.709	0.0222	429.8	1.707
95	0.0255	435.8	1.728	0.0245	435.5	1.726	0.0236	435.1	1.723	0.0227	434.8	1.721
100	0.0260	440.8	1.742	0.0250	440.5	1.739	0.0241	440.2	1.737	0.0232	439.9	1.734
105	0.0265	445.8	1.755	0.0255	445.5	1.753	0.0246	445.2	1.750	0.0237	444.9	1.748
110	0.0270	450.8	1.768	0.0260	450.6	1.766	0.0250	450.3	1.763	0.0241	450.0	1.761
115	0.0275	455.9	1.781	0.0265	455.6	1.779	0.0255	455.4	1.777	0.0246	455.1	1.774
120	0.0280	461.0	1.794	0.0270	460.7	1.792	0.0260	460.5	1.790	0.0250	460.2	1.787
125	0.0285	466.1	1.807	0.0274	465.9	1.805	0.0264	465.6	1.803	0.0255	465.4	1.800
130	0.0290	471.2	1.820	0.0279	471.0	1.818	0.0269	470.8	1.815	0.0259	470.5	1.813
135	0.0295	476.4	1.833	0.0284	476.2	1.831	0.0273	476.0	1.828	0.0264	475.7	1.826
140	0.0299	481.6	1.846	0.0288	481.4	1.843	0.0278	481.2	1.841	0.0268	481.0	1.839
145	0.0304	486.9	1.858	0.0293	486.6	1.856	0.0282	486.4	1.854	0.0272	486.2	1.851
150	0.0309	492.1	1.871	0.0297	491.9	1.868	0.0287	491.7	1.866	0.0277	491.5	1.864
155	0.0313	497.4	1.883	0.0302	497.2	1.881	0.0291	497.0	1.879	0.0281	496.8	1.876
160	0.0318	502.8	1.895	0.0306	502.6	1.893	0.0295	502.4	1.891	0.0285	502.2	1.889
165	0.0323	508.1	1.908	0.0311	507.9	1.906	0.0300	507.7	1.903	0.0289	507.6	1.901
170	0.0327	513.5	1.920	0.0315	513.3	1.918	0.0304	513.2	1.916	0.0293	513.0	1.914
175	0.0332	519.0	1.932	0.0319	518.8	1.930	0.0308	518.6	1.928	0.0298	518.4	1.926
180	0.0336	524.5	1.944	0.0324	524.3	1.942	0.0312	524.1	1.940	0.0302	523.9	1.938
185	0.0341	530.0	1.957	0.0328	529.8	1.954	0.0317	529.6	1.952	0.0306	529.5	1.950
190	0.0345	535.5	1.969	0.0333	535.4	1.966	0.0321	535.2	1.964	0.0310	535.0	1.962
195	0.0349	541.1	1.981	0.0337	541.0	1.978	0.0325	540.8	1.976	0.0314	540.6	1.974
200	0.0354	546.8	1.993	0.0341	546.6	1.990	0.0329	546.4	1.988	0.0318	546.3	1.986
205	0.0358	552.4	2.005	0.0345	552.3	2.002	0.0333	552.1	2.000	0.0322	552.0	1.998
210	0.0363	558.1	2.016	0.0350	558.0	2.014	0.0338	557.8	2.012	0.0326	557.7	2.010

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	800 (61.7°C)			850 (64.1°C)			900 (66.4°C)			950 (68.6°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
65	0.0188	404.0	1.632	0.0173	403.0	1.626	–	–	–	–	–	–
70	0.0193	409.1	1.647	0.0179	408.2	1.641	0.0166	407.2	1.636	0.0154	406.2	1.631
75	0.0199	414.2	1.662	0.0184	413.4	1.656	0.0171	412.4	1.651	0.0159	411.5	1.646
80	0.0204	419.3	1.676	0.0189	418.5	1.671	0.0176	417.7	1.666	0.0164	416.8	1.661
85	0.0209	424.4	1.690	0.0194	423.6	1.685	0.0181	422.8	1.681	0.0169	422.0	1.676
90	0.0214	429.4	1.704	0.0199	428.7	1.700	0.0186	428.0	1.695	0.0174	427.2	1.690
95	0.0219	434.5	1.718	0.0204	433.8	1.713	0.0190	433.1	1.709	0.0178	432.4	1.705
100	0.0224	439.6	1.732	0.0208	438.9	1.727	0.0195	438.3	1.723	0.0182	437.6	1.719
105	0.0228	444.6	1.745	0.0213	444.0	1.741	0.0199	443.4	1.737	0.0187	442.8	1.732
110	0.0233	449.7	1.759	0.0217	449.1	1.754	0.0203	448.6	1.750	0.0191	448.0	1.746
115	0.0237	454.8	1.772	0.0221	454.3	1.768	0.0207	453.7	1.763	0.0195	453.1	1.759
120	0.0242	460.0	1.785	0.0226	459.4	1.781	0.0211	458.9	1.777	0.0199	458.4	1.773
125	0.0246	465.1	1.798	0.0230	464.6	1.794	0.0216	464.1	1.790	0.0203	463.6	1.786
130	0.0250	470.3	1.811	0.0234	469.8	1.807	0.0220	469.3	1.803	0.0206	468.8	1.799
135	0.0255	475.5	1.824	0.0238	475.0	1.820	0.0223	474.5	1.816	0.0210	474.1	1.812
140	0.0259	480.7	1.837	0.0242	480.3	1.833	0.0227	479.8	1.829	0.0214	479.4	1.825
145	0.0263	486.0	1.849	0.0246	485.6	1.845	0.0231	485.1	1.841	0.0218	484.7	1.838
150	0.0267	491.3	1.862	0.0250	490.9	1.858	0.0235	490.4	1.854	0.0221	490.0	1.850
155	0.0271	496.6	1.874	0.0254	496.2	1.870	0.0239	495.8	1.867	0.0225	495.4	1.863
160	0.0276	502.0	1.887	0.0258	501.6	1.883	0.0243	501.2	1.879	0.0229	500.8	1.875
165	0.0280	507.4	1.899	0.0262	507.0	1.895	0.0246	506.6	1.891	0.0232	506.2	1.888
170	0.0284	512.8	1.912	0.0266	512.4	1.908	0.0250	512.0	1.904	0.0236	511.6	1.900
175	0.0288	518.2	1.924	0.0270	517.9	1.920	0.0254	517.5	1.916	0.0239	517.1	1.913
180	0.0292	523.7	1.936	0.0273	523.4	1.932	0.0257	523.0	1.928	0.0243	522.7	1.925
185	0.0296	529.3	1.948	0.0277	528.9	1.944	0.0261	528.6	1.941	0.0246	528.2	1.937
190	0.0300	534.9	1.960	0.0281	534.5	1.956	0.0264	534.2	1.953	0.0250	533.8	1.949
195	0.0304	540.5	1.972	0.0285	540.1	1.968	0.0268	539.8	1.965	0.0253	539.5	1.961
200	0.0308	546.1	1.984	0.0289	545.8	1.980	0.0272	545.5	1.977	0.0256	545.1	1.973
205	0.0312	551.8	1.996	0.0292	551.5	1.992	0.0275	551.2	1.989	0.0260	550.8	1.985
210	0.0315	557.5	2.008	0.0296	557.2	2.004	0.0279	556.9	2.001	0.0263	556.6	1.997
215	0.0319	563.3	2.020	0.0300	563.0	2.016	0.0282	562.7	2.013	0.0267	562.4	2.009

	Absolute Pressure (kPa)											
	1000 (70.6°C)			1100 (74.6°C)			1200 (78.3°C)			1300 (81.7°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
75	0.0149	410.5	1.641	0.0130	408.4	1.631	–	–	–	–	–	–
80	0.0154	415.9	1.656	0.0135	413.9	1.647	0.0119	411.8	1.637	–	–	–
85	0.0158	421.2	1.671	0.0140	419.4	1.662	0.0124	417.5	1.653	0.0110	415.4	1.644
90	0.0163	426.4	1.686	0.0144	424.8	1.677	0.0128	423.1	1.669	0.0114	421.2	1.660
95	0.0167	431.7	1.700	0.0148	430.2	1.692	0.0132	428.6	1.684	0.0119	426.8	1.676
100	0.0171	436.9	1.714	0.0152	435.5	1.706	0.0136	434.0	1.698	0.0123	432.4	1.691
105	0.0176	442.1	1.728	0.0156	440.8	1.720	0.0140	439.4	1.713	0.0126	437.9	1.705
110	0.0180	447.3	1.742	0.0160	446.1	1.734	0.0144	444.8	1.727	0.0130	443.4	1.720
115	0.0183	452.6	1.755	0.0164	451.4	1.748	0.0147	450.1	1.741	0.0133	448.8	1.734
120	0.0187	457.8	1.769	0.0167	456.7	1.761	0.0151	455.5	1.754	0.0137	454.3	1.748
125	0.0191	463.0	1.782	0.0171	462.0	1.775	0.0154	460.8	1.768	0.0140	459.7	1.761
130	0.0195	468.3	1.795	0.0174	467.3	1.788	0.0158	466.2	1.781	0.0143	465.1	1.775
135	0.0198	473.6	1.808	0.0178	472.6	1.801	0.0161	471.6	1.795	0.0146	470.5	1.788
140	0.0202	478.9	1.821	0.0181	477.9	1.814	0.0164	477.0	1.808	0.0149	476.0	1.801
145	0.0206	484.2	1.834	0.0185	483.3	1.827	0.0167	482.4	1.821	0.0152	481.4	1.815
150	0.0209	489.6	1.847	0.0188	488.7	1.840	0.0170	487.8	1.834	0.0155	486.9	1.828
155	0.0213	494.9	1.859	0.0191	494.1	1.853	0.0173	493.2	1.846	0.0158	492.3	1.840
160	0.0216	500.3	1.872	0.0194	499.5	1.865	0.0176	498.7	1.859	0.0161	497.8	1.853
165	0.0220	505.8	1.884	0.0198	505.0	1.878	0.0179	504.2	1.872	0.0164	503.3	1.866
170	0.0223	511.3	1.897	0.0201	510.5	1.890	0.0182	509.7	1.884	0.0167	508.9	1.878
175	0.0226	516.8	1.909	0.0204	516.0	1.903	0.0185	515.2	1.897	0.0169	514.5	1.891
180	0.0230	522.3	1.921	0.0207	521.6	1.915	0.0188	520.8	1.909	0.0172	520.1	1.903
185	0.0233	527.9	1.934	0.0210	527.2	1.927	0.0191	526.4	1.921	0.0175	525.7	1.916
190	0.0236	533.5	1.946	0.0213	532.8	1.939	0.0194	532.1	1.934	0.0178	531.4	1.928
195	0.0240	539.1	1.958	0.0216	538.4	1.952	0.0197	537.7	1.946	0.0180	537.1	1.940
200	0.0243	544.8	1.970	0.0219	544.1	1.964	0.0200	543.5	1.958	0.0183	542.8	1.952
205	0.0246	550.5	1.982	0.0222	549.9	1.976	0.0202	549.2	1.970	0.0186	548.5	1.965
210	0.0249	556.3	1.994	0.0225	555.6	1.988	0.0205	555.0	1.982	0.0188	554.3	1.977
215	0.0253	562.1	2.006	0.0228	561.4	2.000	0.0208	560.8	1.994	0.0191	560.2	1.989
220	0.0256	567.9	2.018	0.0231	567.3	2.012	0.0211	566.7	2.006	0.0193	566.0	2.001
225	0.0259	573.8	2.030	0.0234	573.2	2.023	0.0214	572.6	2.018	0.0196	572.0	2.012

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	1400 (85.0°C)			1500 (88.1°C)			1600 (91.0°C)			1700 (93.8°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
85	0.0098	413.0	1.634	–	–	–	–	–	–	–	–	–
90	0.0102	419.1	1.651	0.0092	416.8	1.642	–	–	–	–	–	–
95	0.0107	425.0	1.667	0.0096	422.9	1.659	0.0086	420.7	1.651	0.0078	418.1	1.641
100	0.0111	430.7	1.683	0.0100	428.9	1.675	0.0091	426.9	1.667	0.0082	424.7	1.659
105	0.0114	436.4	1.698	0.0104	434.7	1.691	0.0094	432.9	1.683	0.0086	431.0	1.676
110	0.0118	442.0	1.713	0.0107	440.4	1.706	0.0098	438.8	1.699	0.0090	437.1	1.692
115	0.0121	447.5	1.727	0.0111	446.1	1.720	0.0101	444.6	1.714	0.0093	443.1	1.707
120	0.0125	453.0	1.741	0.0114	451.7	1.735	0.0105	450.3	1.729	0.0096	448.9	1.722
125	0.0128	458.5	1.755	0.0117	457.3	1.749	0.0108	456.0	1.743	0.0099	454.7	1.737
130	0.0131	464.0	1.769	0.0120	462.8	1.763	0.0111	461.6	1.757	0.0102	460.4	1.751
135	0.0134	469.5	1.782	0.0123	468.4	1.776	0.0113	467.2	1.771	0.0105	466.0	1.765
140	0.0137	474.9	1.796	0.0126	473.9	1.790	0.0116	472.8	1.784	0.0108	471.7	1.779
145	0.0140	480.4	1.809	0.0129	479.4	1.803	0.0119	478.4	1.798	0.0110	477.3	1.792
150	0.0142	485.9	1.822	0.0131	485.0	1.816	0.0121	484.0	1.811	0.0113	483.0	1.806
155	0.0145	491.4	1.835	0.0134	490.5	1.829	0.0124	489.6	1.824	0.0115	488.6	1.819
160	0.0148	497.0	1.848	0.0137	496.1	1.842	0.0127	495.2	1.837	0.0118	494.3	1.832
165	0.0151	502.5	1.860	0.0139	501.7	1.855	0.0129	500.8	1.850	0.0120	499.9	1.845
170	0.0153	508.1	1.873	0.0142	507.3	1.868	0.0131	506.4	1.863	0.0122	505.6	1.858
175	0.0156	513.7	1.886	0.0144	512.9	1.880	0.0134	512.1	1.876	0.0125	511.3	1.871
180	0.0159	519.3	1.898	0.0147	518.5	1.893	0.0136	517.7	1.888	0.0127	517.0	1.883
185	0.0161	525.0	1.910	0.0149	524.2	1.905	0.0139	523.5	1.901	0.0129	522.7	1.896
190	0.0164	530.6	1.923	0.0152	529.9	1.918	0.0141	529.2	1.913	0.0132	528.4	1.909
195	0.0166	536.4	1.935	0.0154	535.6	1.930	0.0143	534.9	1.925	0.0134	534.2	1.921
200	0.0169	542.1	1.947	0.0156	541.4	1.942	0.0146	540.7	1.938	0.0136	540.0	1.933
205	0.0171	547.9	1.959	0.0159	547.2	1.955	0.0148	546.5	1.950	0.0138	545.9	1.946
210	0.0174	553.7	1.971	0.0161	553.0	1.967	0.0150	552.4	1.962	0.0140	551.7	1.958
215	0.0176	559.5	1.984	0.0163	558.9	1.979	0.0152	558.3	1.974	0.0142	557.6	1.970
220	0.0179	565.4	1.996	0.0166	564.8	1.991	0.0154	564.2	1.986	0.0145	563.5	1.982
225	0.0181	571.3	2.007	0.0168	570.7	2.003	0.0157	570.1	1.998	0.0147	569.5	1.994

	Absolute Pressure (kPa)											
	1800 (96.5°C)			1900 (99.0°C)			2000 (101.5°C)			2100 (103.8°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
100	0.0074	422.3	1.651	0.0067	419.5	1.641	–	–	–	–	–	–
105	0.0078	428.9	1.668	0.0071	426.6	1.660	0.0064	424.0	1.651	0.0058	420.8	1.641
110	0.0082	435.3	1.685	0.0075	433.3	1.678	0.0069	431.1	1.670	0.0063	428.6	1.662
115	0.0085	441.4	1.701	0.0079	439.6	1.694	0.0072	437.7	1.687	0.0067	435.6	1.680
120	0.0089	447.4	1.716	0.0082	445.8	1.710	0.0076	444.1	1.704	0.0070	442.3	1.697
125	0.0092	453.3	1.731	0.0085	451.8	1.725	0.0079	450.3	1.719	0.0073	448.6	1.713
130	0.0095	459.1	1.745	0.0088	457.7	1.740	0.0082	456.3	1.734	0.0076	454.9	1.729
135	0.0097	464.8	1.760	0.0091	463.6	1.754	0.0084	462.3	1.749	0.0079	460.9	1.744
140	0.0100	470.6	1.774	0.0093	469.4	1.768	0.0087	468.2	1.763	0.0081	466.9	1.758
145	0.0103	476.3	1.787	0.0096	475.2	1.782	0.0089	474.0	1.777	0.0084	472.8	1.773
150	0.0105	482.0	1.801	0.0098	480.9	1.796	0.0092	479.8	1.791	0.0086	478.7	1.787
155	0.0107	487.6	1.814	0.0100	486.6	1.809	0.0094	485.6	1.805	0.0088	484.6	1.800
160	0.0110	493.3	1.827	0.0103	492.4	1.823	0.0096	491.4	1.818	0.0091	490.4	1.814
165	0.0112	499.0	1.840	0.0105	498.1	1.836	0.0099	497.2	1.832	0.0093	496.2	1.827
170	0.0114	504.7	1.853	0.0107	503.8	1.849	0.0101	503.0	1.845	0.0095	502.1	1.840
175	0.0117	510.4	1.866	0.0109	509.6	1.862	0.0103	508.7	1.858	0.0097	507.9	1.853
180	0.0119	516.2	1.879	0.0112	515.4	1.875	0.0105	514.5	1.870	0.0099	513.7	1.866
185	0.0121	521.9	1.892	0.0114	521.1	1.887	0.0107	520.3	1.883	0.0101	519.5	1.879
190	0.0123	527.7	1.904	0.0116	526.9	1.900	0.0109	526.2	1.896	0.0103	525.4	1.892
195	0.0125	533.5	1.917	0.0118	532.8	1.912	0.0111	532.0	1.908	0.0105	531.3	1.905
200	0.0128	539.3	1.929	0.0120	538.6	1.925	0.0113	537.9	1.921	0.0107	537.2	1.917
205	0.0130	545.2	1.941	0.0122	544.5	1.937	0.0115	543.8	1.933	0.0109	543.1	1.929
210	0.0132	551.1	1.954	0.0124	550.4	1.950	0.0117	549.7	1.946	0.0111	549.0	1.942
215	0.0134	557.0	1.966	0.0126	556.3	1.962	0.0119	555.7	1.958	0.0112	555.0	1.954
220	0.0136	562.9	1.978	0.0128	562.3	1.974	0.0121	561.6	1.970	0.0114	561.0	1.966
225	0.0138	568.9	1.990	0.0130	568.3	1.986	0.0123	567.7	1.982	0.0116	567.0	1.979

Table 2 (continued)
DuPont™ Suva® 236fa Superheated Vapor—Constant Pressure Tables

V = Volume in m³/kg H = Enthalpy in kJ/kg S = Entropy in kJ/(kg) (K) (Saturated Vapor Properties in parentheses)

	Absolute Pressure (kPa)											
	2200 (106.1°C)			2400 (110.4°C)			2600 (114.3°C)			2800 (118.1°C)		
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
110	0.0057	425.8	1.653	–	–	–	–	–	–	–	–	–
115	0.0061	433.4	1.673	0.0051	427.8	1.655	0.0040	419.6	1.632	–	–	–
120	0.0065	440.3	1.690	0.0055	435.9	1.676	0.0046	430.3	1.659	0.0037	422.0	1.636
125	0.0068	446.9	1.707	0.0059	443.1	1.694	0.0050	438.7	1.681	0.0042	433.1	1.664
130	0.0071	453.3	1.723	0.0062	450.0	1.711	0.0054	446.2	1.699	0.0046	441.8	1.686
135	0.0074	459.5	1.738	0.0064	456.5	1.728	0.0057	453.2	1.717	0.0050	449.5	1.705
140	0.0076	465.6	1.753	0.0067	462.9	1.743	0.0059	459.9	1.733	0.0052	456.7	1.722
145	0.0079	471.6	1.768	0.0070	469.1	1.758	0.0062	466.4	1.749	0.0055	463.5	1.739
150	0.0081	477.6	1.782	0.0072	475.3	1.773	0.0064	472.8	1.764	0.0057	470.1	1.755
155	0.0083	483.5	1.796	0.0074	481.3	1.787	0.0066	479.0	1.778	0.0060	476.6	1.770
160	0.0085	489.4	1.809	0.0076	487.3	1.801	0.0068	485.2	1.793	0.0062	482.9	1.784
165	0.0088	495.3	1.823	0.0078	493.3	1.815	0.0070	491.3	1.807	0.0064	489.2	1.799
170	0.0090	501.1	1.836	0.0080	499.3	1.828	0.0072	497.4	1.820	0.0066	495.4	1.813
175	0.0092	507.0	1.849	0.0082	505.2	1.842	0.0074	503.4	1.834	0.0067	501.5	1.827
180	0.0094	512.9	1.862	0.0084	511.2	1.855	0.0076	509.4	1.847	0.0069	507.6	1.840
185	0.0096	518.7	1.875	0.0086	517.1	1.868	0.0078	515.4	1.861	0.0071	513.7	1.854
190	0.0098	524.6	1.888	0.0088	523.1	1.881	0.0080	521.4	1.874	0.0073	519.8	1.867
195	0.0099	530.5	1.901	0.0090	529.0	1.893	0.0081	527.5	1.887	0.0074	525.9	1.880
200	0.0101	536.4	1.913	0.0091	535.0	1.906	0.0083	533.5	1.899	0.0076	532.0	1.893
205	0.0103	542.4	1.926	0.0093	541.0	1.919	0.0085	539.5	1.912	0.0078	538.1	1.906
210	0.0105	548.3	1.938	0.0095	547.0	1.931	0.0086	545.6	1.925	0.0079	544.2	1.918
215	0.0107	554.3	1.951	0.0097	553.0	1.944	0.0088	551.6	1.937	0.0081	550.3	1.931
220	0.0108	560.4	1.963	0.0098	559.1	1.956	0.0090	557.7	1.950	0.0082	556.4	1.943
225	0.0110	566.4	1.975	0.0100	565.1	1.968	0.0091	563.9	1.962	0.0084	562.6	1.956

	Absolute Pressure (kPa)											
	3000 (121.6°C)			3200 (124.9°C)								
Temp [°C]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]	Volume [m³/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K–kg]
125	0.0034	425.4	1.643	–	–	–						
130	0.0040	436.5	1.671	0.0033	429.4	1.651						
135	0.0043	445.3	1.692	0.0037	440.3	1.678						
140	0.0046	453.1	1.711	0.0041	449.1	1.699						
145	0.0049	460.4	1.729	0.0044	456.9	1.718						
150	0.0051	467.3	1.745	0.0046	464.3	1.736						
155	0.0054	474.0	1.761	0.0049	471.3	1.752						
160	0.0056	480.6	1.776	0.0051	478.1	1.768						
165	0.0058	487.0	1.791	0.0053	484.7	1.783						
170	0.0060	493.3	1.805	0.0055	491.2	1.798						
175	0.0062	499.6	1.819	0.0056	497.6	1.812						
180	0.0063	505.8	1.833	0.0058	503.9	1.826						
185	0.0065	512.0	1.847	0.0060	510.2	1.840						
190	0.0067	518.1	1.860	0.0061	516.5	1.854						
195	0.0068	524.3	1.873	0.0063	522.7	1.867						
200	0.0070	530.4	1.886	0.0064	528.9	1.880						
205	0.0071	536.6	1.899	0.0066	535.1	1.893						
210	0.0073	542.7	1.912	0.0067	541.3	1.906						
215	0.0074	548.9	1.925	0.0069	547.5	1.919						
220	0.0076	555.1	1.937	0.0070	553.7	1.932						
225	0.0077	561.3	1.950	0.0072	560.0	1.944						

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